AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application:

1. (Currently Amended) A thin film deposition reactor comprising:

a reactor block on which a wafer is placed;

a shower head plate for uniformly maintaining a predetermined pressure by covering the reactor block;

a wafer block installed in the reactor block, on which the wafer is to be seated;

an exhausting portion connected to the reactor block for exhausting a gas from the rector block;

a first connection line in communication with the shower head plate for supplying a first reaction gas and an inert gas;

a second connection line in communication with the shower head plate for supplying a second reaction gas and the inert gas; and

a diffusion plate mounted on a lower surface of the shower head plate, the diffusion plate having a plurality of spray holes which is in communication with the first connection line and face the upper surface of the wafer to spray the first reaction gas and the inert gas onto the wafer, and a plurality of nozzles which is in communication with a passage ~~radically~~radially formed from the second connection line and extend toward the inner side surface of the reactor block to spray the second reaction gas and the inert gas toward edges of the wafer, whereby the first and second reaction gases are applied on the wafer without mixing each other.

2. (Previously Presented) The thin film deposition reactor of claim 1, wherein the diffusion plate has a lower surface of a concave form.

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3. (Previously Presented) The thin film deposition reactor of claim 1, wherein the diffusion plate has a lower surface of a convex form.

4. (Previously Presented) The thin film deposition reactor of claim 1, wherein the diffusion plate further comprises a first diffusion plate in communication with the plurality of spray holes and the first connection line, and a second diffusion plate in communication with the plurality of nozzles and the second connection line.

5. (Previously Presented) The thin film deposition reactor of claim 1, further comprising a first mixing portion between the first connection line and the spray holes for mixing the first reaction gas and the inert gas supplied from the first connection line and diffusing the mixture to the spray holes.

6. (Previously Presented) The thin film deposition reactor of claim 1, further comprising a second mixing portion between the second connection line and the shower head plate for mixing the second reaction gas and the inert gas supplied from the second connection line and diffusing the mixture to the nozzles through the passage, the second mixing portion having an auxiliary diffusion plate in which holes are formed.

7. (Previously Presented) The thin film deposition reactor of claim 1, wherein an area of the diffusion plate on which the spray holes are formed is larger than the wafer.

8. (Previously Presented) The thin film deposition reactor of claim 1, wherein the diameter of each of the spray holes is 1 to 2.5 mm.

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9. (Original) The thin film deposition reactor of claim 8, wherein the number of spray holes is 100 to 1000.

10. (Previously Presented) The thin film deposition reactor of claim 9, wherein the spray hole comprises an upper end and a lower end, and the upper end has a diameter larger than that of the lower end so that thermal energy from the wafer block is evenly transferred to the shower head plate to prevent the diffusion plate from being overheated.

11. (Previously Presented) The thin film deposition reactor of claim 10, wherein the diffusion plate has a thickness of at least 5mm to prevent the diffusion plate from being bent at a high temperature.

12. (Original) The thin film deposition reactor of claim 1, wherein the number of nozzles is 30 to 100.

13. (Previously Presented) The thin film deposition reactor of claim 1, wherein a distance between the diffusion plate and the wafer block is 20 to 50mm.

14. (Previously Presented) The thin film deposition reactor of claim 1, further comprising a pumping baffle which is installed on the outer circumference of the wafer block, the pumping baffle comprising a sidewall placed around the lateral side of the wafer block, a bottom wall extended outward from a lower end of the sidewall, and holes formed in the bottom wall.

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15. (Previously Presented) The thin film deposition reactor of claim 10, wherein the spray hole further comprises a step between the upper end and the lower end.

16. (Previously Presented) The thin film deposition reactor of claim 4, wherein the first diffusion plate has a thickness of at least 5mm.

17. (Previously Presented) The thin film deposition reactor of claim 14, wherein the holes are symmetrically arranged.

18. (Previously Presented) The thin film deposition reactor of claim 1, wherein an interval between a center of the diffusion plate and the wafer block is different from an interval between edges of the diffusion plate and the wafer block.

19. (Previously Presented) The thin film deposition reactor of claim 18, wherein the interval between the center of the diffusion plate and the wafer block is larger than the interval between the edges of the diffusion plate and the wafer block to adjust a thickness, purity and electrical characteristics of a deposited thin film.

20. (Previously Presented) The thin film deposition reactor of claim 18, wherein the interval between the center of the diffusion plate and the wafer block is smaller than the interval between the edges of the diffusion plate and the wafer block to adjust a thickness, purity and electrical characteristics of a deposited thin film.

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